

## High Temperature Fiber Bragg Grating Sensing Cable (3)

**Cable Number:** FBGCSS1001P (Maximum application temperature: 300°C)

**Cable structure:** composed of a stainless steel SS316L tube and a FBG array (see Figure)

**Mechanical Characteristics:**

Stainless steel tubing material: SS316L

Cable outside diameter: 6.35mm

Tubing thickness: 0.89mm

Weight: 122.2kg/km

Tensile strength: 960kg

Pull load (yield point): 530kg

Thermal expansion coefficient:  $16.6 \times 10^{-6} \text{m/m}^\circ\text{C}$

Work pressure limit: 40MPa

Standards: ASME: A 269; NACE MR0175/ISO 15156-3: Table A.7

**FBG Array :** Polyimide coated single mode fiber: SMF28

Wavelength range: 1510nm-1590nm

FBG number: max 40 corresponding to the application temperature of 300°C

**Cable Toe End Termination:** Upon customer request

Or: Upon UniSignal design:

Hermetic seal (no moving parts)

Special mechanical and optical designs at the fiber end

